

Appln. No. 10/694,555
Amdt. dated December 19, 2005
Reply to Office Action dated September 23, 2005

R E M A R K S / A R G U M E N T S

Reconsideration of the present application, as amended, is respectfully requested.

The September 23, 2005 Office Action and the Examiner's comments have been carefully considered. In response, claims are amended, and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

DOUBLE PATENTING

In the Office Action, claims 1-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,668,168. Claims 1-14 are amended herein to clarify the claimed invention. In view of the amendments to claims 1-14, it is respectfully submitted that claims 1-14, as now set forth, are patentably distinct from claims 1-15 of the '168 patent. Therefore, the obviousness-type double patenting has been overcome and should be withdrawn.

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PRIOR ART REJECTIONS

In the Office Action, claims 1-3 and 6-13 are rejected under 35 USC 102(e) as being anticipated by USP 6,377,809 (Rezaiifar et al.). Claims 4, 8 and 14 are rejected under 35 USC 103(a) as being unpatentable over Rezaiifar et al. Claim 5 is rejected under 35 USC 103(a) as being unpatentable over Rezaiifar et al., and further in view of USP 6,473,419 (Gray et al.).

In response, independent claims 1, 6, 9 and 12 are amended to clarify the invention.

Claim 1 now includes, inter alia, the features of traffic reduction means for reducing traffic in the uplink and downlink control channels and control means for activating the traffic reduction means after a first data transmission on a data channel to cause uplink and downlink control channels to enter into a dormant state during which control information is transmitted on the uplink and downlink control channels. The traffic reduction means cause transmission of a reduced amount of control information on the uplink and downlink control channels while the uplink and downlink control channels are in the dormant state than the amount of control information transmitted on the uplink and downlink control channels during transmission of data packets on the data channel. Claims 6, 9 and 12 are amended to include similar features.

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By transmitting a "reduced amount" of control information while the uplink and downlink control channels are in the dormant state, in comparison to the amount of control information transmitted during data transmission, the overhead of maintaining control channels is significantly reduced (see the specification at page 5, lines 4-15).

Rezaiifar et al. do not disclose transmitting different amounts of control information during data transmission and while control channels are in a dormant state entered into, for example, in the absence of data transmission.

Rezaiifar et al. describe a channel structure for communication systems having a traffic channel mode, a suspended mode and a dormant mode. In the traffic channel mode, there is data transmission between the base station 4 and remote station 6. In the suspended mode, which is entered into after a period of inactivity exceeds a predetermined idle period, the traffic channel is released, i.e., there is no transmission of information between the base station 4 and the remote station 6, and state information is retained by both the base station 4 and the remote station 6 (see col. 16, lines 27-33). In the dormant mode, which is entered into after the suspended mode, the state information is no longer retained (see col. 17, lines 4-16).

In contrast to the present claimed invention, in Rezaiifar et al. control information is transmitted only during the traffic

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channel mode and not during the suspended mode or the dormant mode. Indeed, as noted by the Examiner in the Office Action at page 4, lines 2-3, in Rezaiifar et al., the control channel is used "only when said remote station is in a traffic state," referring to col. 19, lines 41-50.

Thus, Rezaiifar et al. do not disclose, teach or suggest transmitting control information on control channels both during data transmission on a data channel and while data is not being transmitted on the data channel (i.e., during a dormant state), with the amount of control information being transmitted during the dormant state being "reduced" or less than the amount being transmitted during data transmission.

Gray et al. also do not disclose, teach or suggest the features of independent claims 1, 6, 9 and 12, e.g., transmission of a reduced amount of control information on control channels during a dormant state in which data is not being transmitted on a data channel.

In view of the foregoing, independent claims 1, 6, 9 and 12 are patentable over Rezaiifar et al. under 35 USC 102 as well as 35 USC 103, and over Rezaiifar et al. in combination with Gray et al. under 35 USC 103.

Claims 2-5, 7, 8, 10, 11, 13 and 14 are either directly or indirectly dependent on claim 1, claim 6, claim 9 or claim 12 and are patentable over the references of record in view of their

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dependence on claim 1, claim 6, claim 9 or claim 12 and because the references of record do not disclose, teach or suggest each of the limitations set forth in claims 2-5, 7, 8, 10, 11, 13 and 14.

NEW CLAIMS

Claims 15-20 are added.

Claims 15-19 are presented in view of the amendments to claims 4, 8, 11 and 14 to remove multiple dependencies therefrom and thus are directed to subject matter set forth in original claims 4, 8, 11 and 14.

Claim 20 is directed to the feature of the dormant state being entered and the reduction in transmission of control information on the uplink and downlink control channels being initiated immediately after the first data transmission when the control means determines that no additional data transmission is currently available for transmission. This feature is described in the specification at page 4, line 32 to page 5, line 3.

Claims 15-20 depend directly or indirectly on claim 1, claim 6, claim 9 or claim 12 and are patentable over the references of record in view of their dependence thereon and because the references of record do not disclose, teach or suggest each of the limitations set forth in these claims.

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No additional fee is due for the presentation of claims 15-20 in view of the amendments to claims 4, 8, 11 and 14 to remove multiple dependencies. However, if any additional fees are due, please charge our Deposit Account No. 06-1378 for such sum.

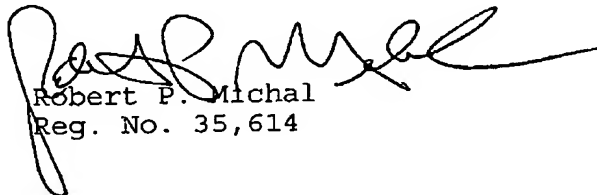
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If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of the amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,


Robert P. Michal
Reg. No. 35,614

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Frishauf, Holtz, Goodman & Chick, P.C.
220 Fifth Avenue
New York, New York 10001-7708
Tel. No. (212) 319-4900
Fax No. (212) 319-5101
RPM/ms